



STATE OF MARYLAND

# DHMH

Maryland Department of Health and Mental Hygiene  
201 W. Preston Street, Baltimore, Maryland 21201

Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – John M. Colmers, Secretary

**Office of Preparedness & Response**

Sherry Adams, R.N., C.P.M., Director

Isaac P. Ajit, M.D., M.P.H., Deputy Director

**December 4, 2009**

## Public Health & Emergency Preparedness Bulletin: # 2009:47 Reporting for the week ending 11/28/09 (MMWR Week #47)

### CURRENT HOMELAND SECURITY THREAT LEVELS

**National:** Yellow (ELEVATED) \*The threat level in the airline sector is Orange (HIGH)  
**Maryland:** Yellow (ELEVATED)

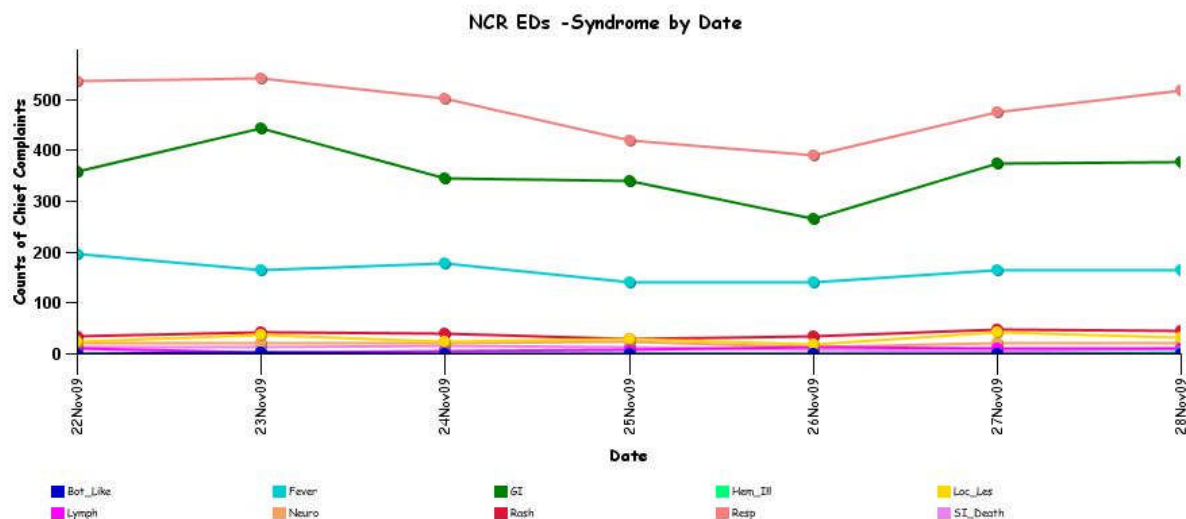
### SYNDROMIC SURVEILLANCE REPORTS

**ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):**

Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled.

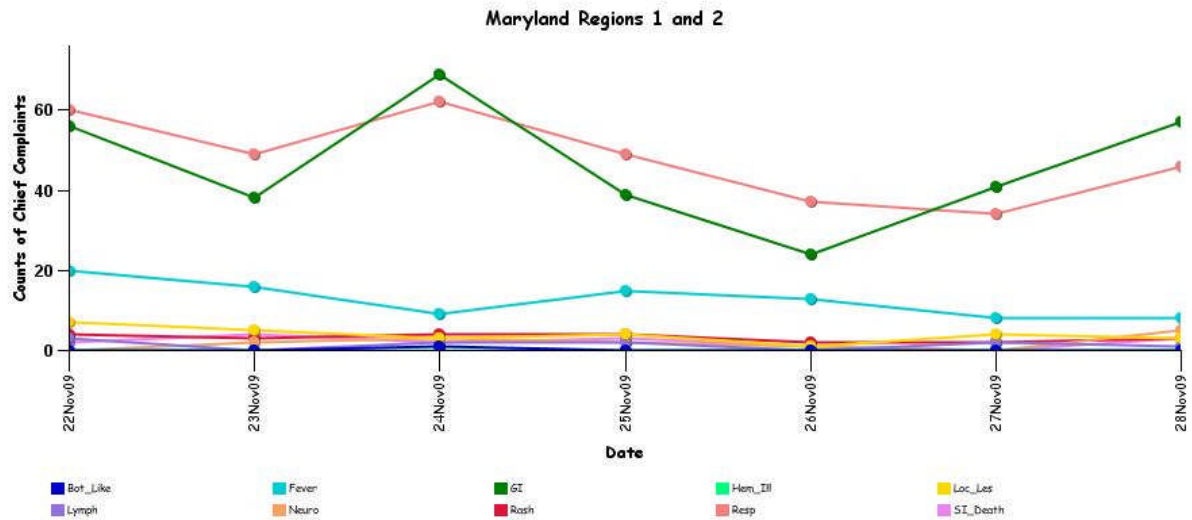
Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

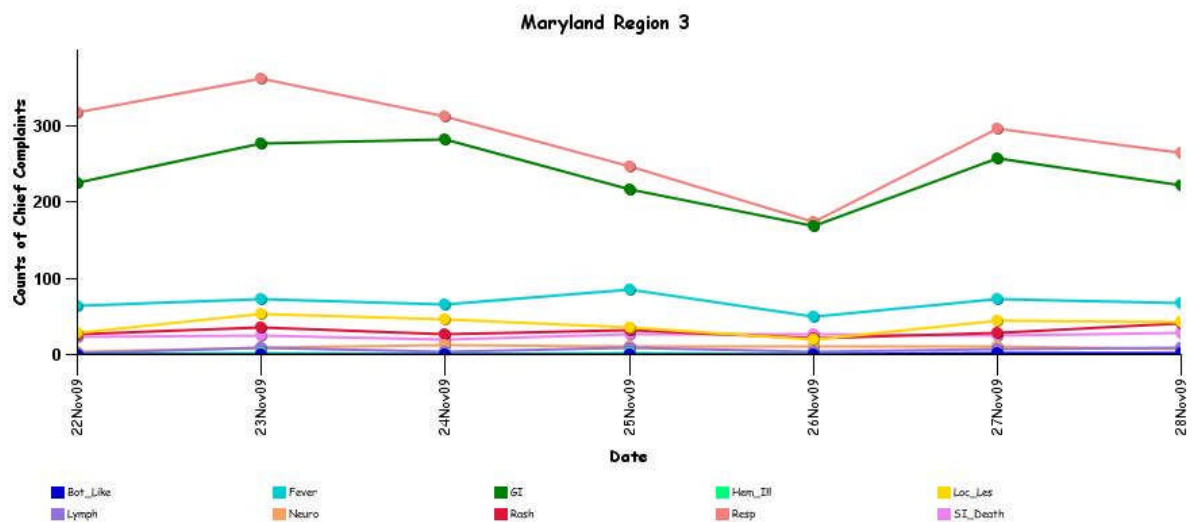


\* Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

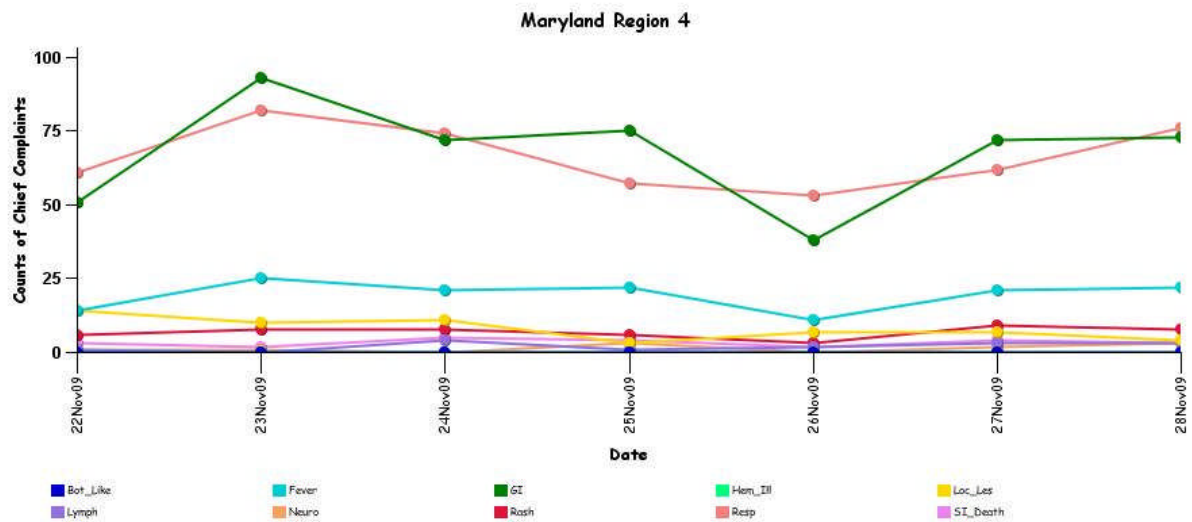
## MARYLAND ESSENCE:



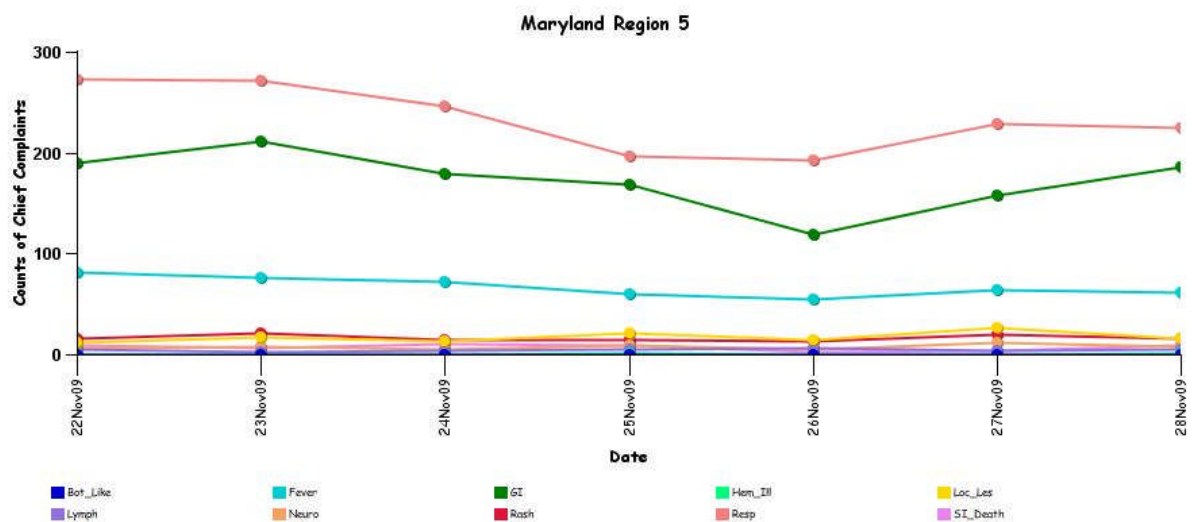
\* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



\* Region 3 includes EDs in Anne Arundel, Baltimore city, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



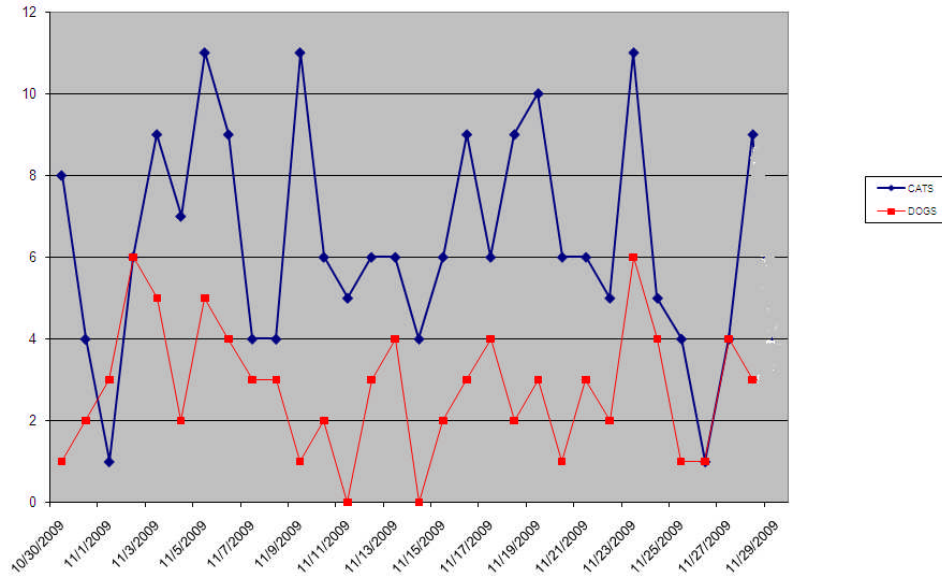
\* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



\* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

**BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT:** No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.

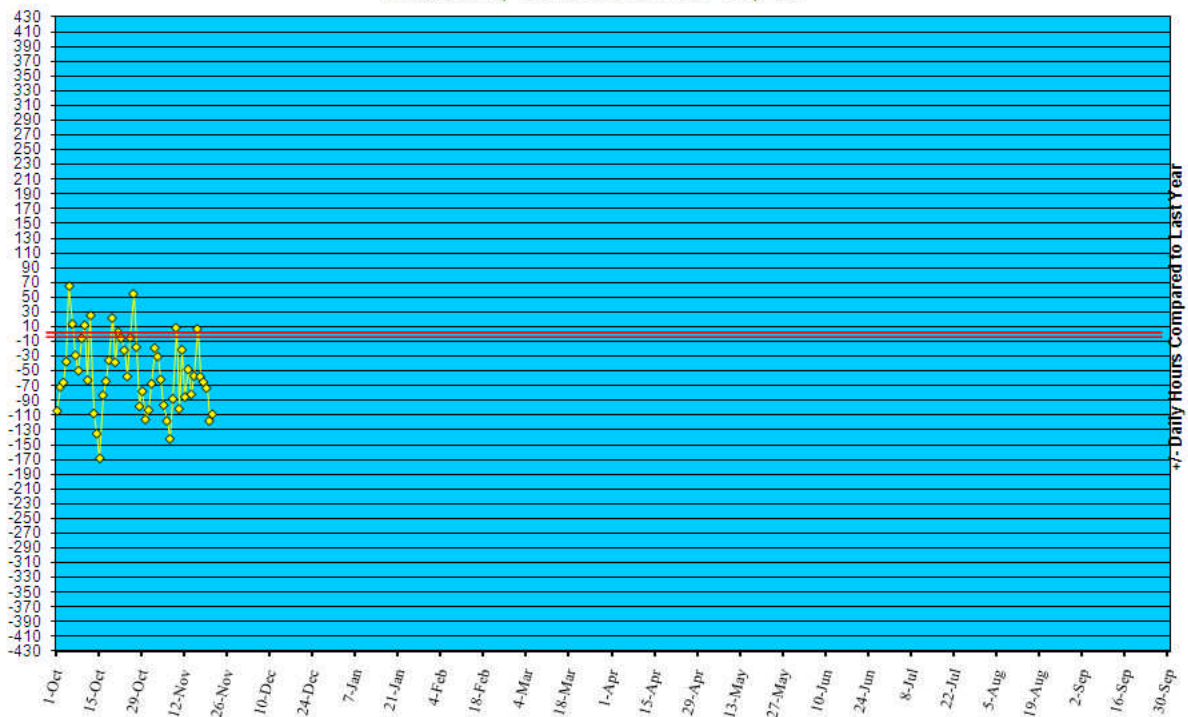
Dead Animal Pick-Up Calls to 311



#### REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

**YELLOW ALERT TIMES (ED DIVERSION):** The reporting period begins 10/01/09.

#### Statewide Yellow Alert Comparison Daily Historical Deviations October 1, '09 to November 21, '09



## **REVIEW OF MORTALITY REPORTS**

**Office of the Chief Medical Examiner:** OCME reports no suspicious deaths related to an emerging public health threat for the week.

## **MARYLAND TOXIDROMIC SURVEILLANCE**

**Poison Control Surveillance Monthly Update:** Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in October 2009 did not identify any cases of possible public health threats.

## **REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS**

### **COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):**

<b>Meningitis:</b>	<b><u>Aseptic</u></b>	<b><u>Meningococcal</u></b>
New cases (Nov 22- Nov 28, 2009):	08	0
Prior week (Nov 15- Nov 21, 2009):	15	0
Week#47, 2008 (Nov 16- Nov 22, 2008):	10	0

**OUTBREAKS:** 1 outbreak was reported to DHMH during MMWR Week 47 (November 22- 28, 2009):

### **1 Respiratory illness outbreak**

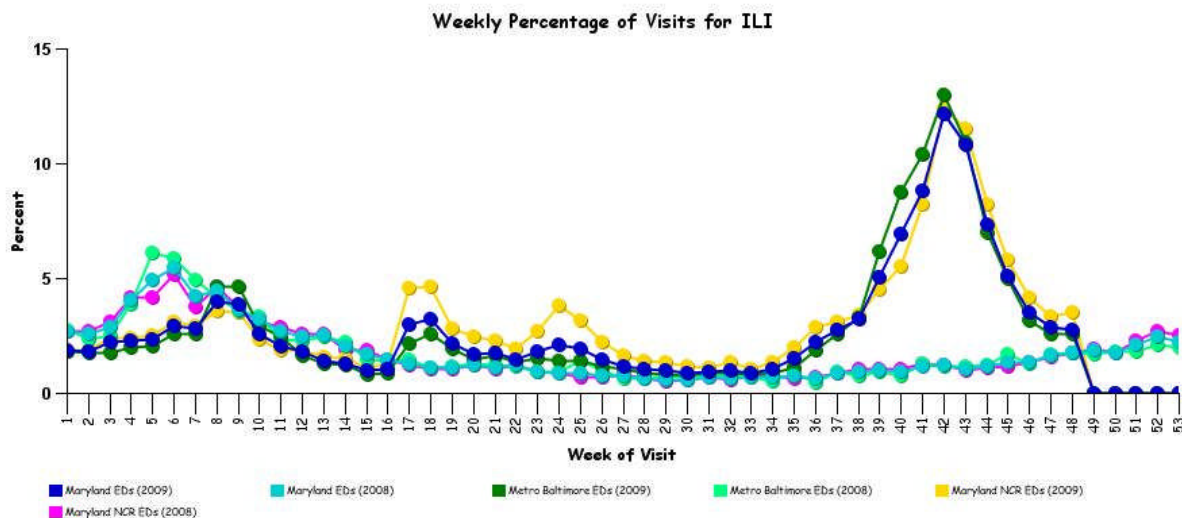
1 outbreak of INFLUENZA associated with an Institution

**MARYLAND INFLUENZA STATUS:** Influenza activity in Maryland for Week 47 is WIDESPREAD.

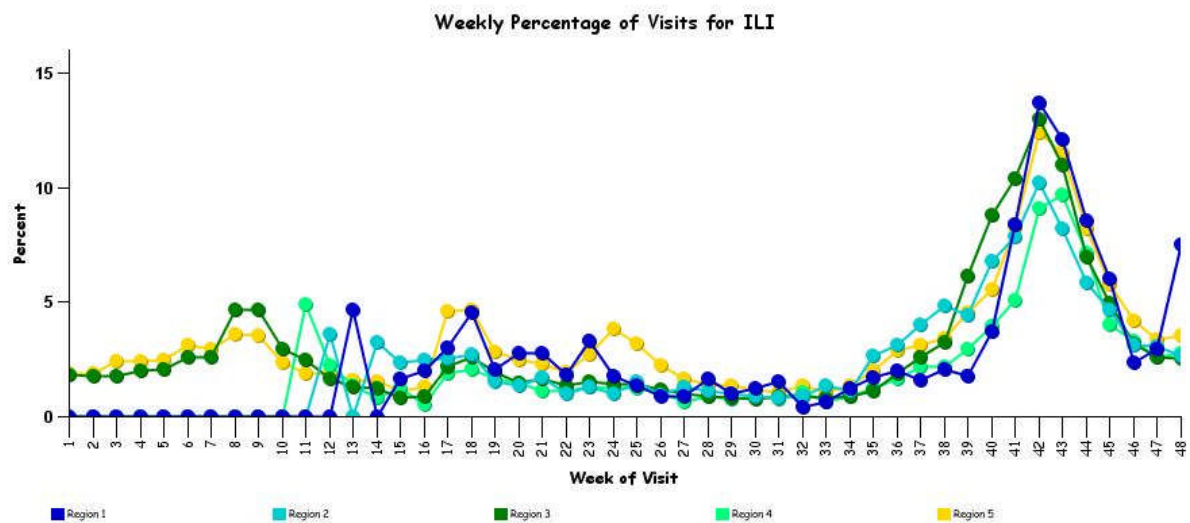
### **SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS**

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



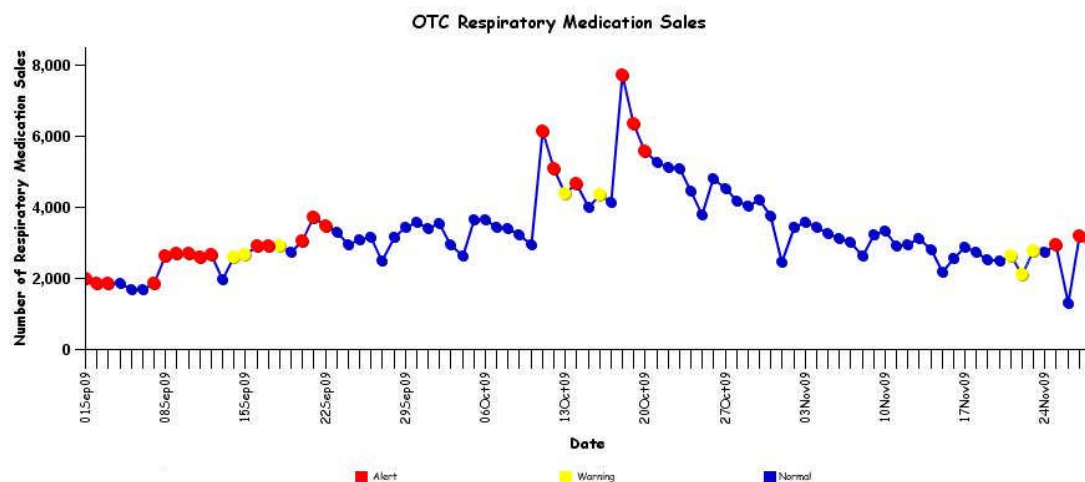
\* Includes 2008 and 2009 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



\*Includes 2009 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5  
2009 data for these regions are depicted separately to establish baselines, due to the addition of new hospitals in these regions.

#### OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.





## **PANDEMIC INFLUENZA UPDATE:**

**WHO Pandemic Influenza Phase:** Phase 6: Characterized by community level outbreaks in at least one other country in a different WHO region in addition to the criteria defined in Phase 5. Designation of this phase will indicate that a global pandemic is under way. Definition of Phase 5 is characterized by human-to-human spread of the virus into at least two countries in one WHO region. While most countries will not be affected at this stage, the declaration of Phase 5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.

**US Pandemic Influenza Stage:** Stage 0: New domestic animal outbreak in at-risk country

**\*\*More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at:**  
[http://preparedness.dhmm.maryland.gov/Docs/PandemicInfluenza/PandemicInfluenzaResponseAnnex\(Vers7.2\).pdf](http://preparedness.dhmm.maryland.gov/Docs/PandemicInfluenza/PandemicInfluenzaResponseAnnex(Vers7.2).pdf)

## **AVIAN INFLUENZA-RELATED REPORTS:**

**WHO update:** As of September 24, 2009, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 442, of which 262 have been fatal. Thus, the case fatality rate for human H5N1 is about 60%.

**AVIAN INFLUENZA, HUMAN, EIGHTY-NINTH CASE (EGYPT):** 27 Nov 2009, The Ministry of Health of Egypt has reported a new confirmed human case of avian influenza A(H5N1). The case is a 3-year-old male from Minia Governorate. His symptoms started on 21 Nov 2009. He was admitted to hospital on 22 Nov 2009 and his condition is stable. Investigations into the source of infection indicated that the case had close contact with dead and/or sick poultry. The case was confirmed by the Egyptian Central Public Health Laboratories. Of the 89 cases confirmed to date in Egypt, 27 have been fatal.

## **H1N1 INFLUENZA (Swine Flu):**

**INFLUENZA PANDEMIC (H1N1) 2009, ORIGIN:** 26 Nov 2009, Adrian Gibbs, the virologist who said in May [2009] that swine flu may have escaped from a laboratory, published his findings today [24 Nov 2009], renewing discussion about the origins of the pandemic virus. The new pandemic (H1N1) 2009 virus, which was discovered in Mexico and the U.S. in April [2009], may be the product of 3 strains from 3 continents that swapped genes in a lab or a vaccine-manufacturing plant, Gibbs, and fellow Australian scientists wrote in Virology Journal [see comment below]. The authors analyzed the genetic makeup of the virus and found its origin could be more simply explained by human involvement than a coincidence of nature. Their study, published in a free, online journal reviewed by other scientists, follows debate among researchers 6 months ago, when Gibbs asked the World Health Organization to consider the hypothesis. After reviewing Gibbs' initial 3-page paper, WHO and other organizations concluded the pandemic strain was a naturally occurring virus and not laboratory-derived. "It is important that the source of the new virus be found if we wish to avoid future pandemics rather than just trying to minimize the consequences after they have emerged," Gibbs and colleagues John Armstrong and Jean Downie said in today's 8-page study. Gibbs and Armstrong are on the emeritus faculty at the Australian National University in Canberra and Downie is affiliated with the Centre for Infectious Diseases and Microbiology Laboratory Services at Sydney's Westmead Hospital. While the exact source of the new H1N1 strain is a mystery, their research has "raised many new questions," they said. The authors compared the genetic blueprints of flu strains stored in the free database GenBank and found the pandemic virus's nearest ancestors circulate in pigs. While migratory birds may have acted as conduit for their convergence, human involvement in bringing them together is "by far the simplest explanation," Gibbs said in a telephone interview today [24 Nov 2009]. Gibbs wrote or coauthored more than 250 scientific publications on viruses, mostly pertaining to the plant world, during his 39-year career at the Australian National University, according to biographical information on the university's Web site. "Knowing Adrian Gibbs, he will have thought through it pretty logically and come to that conclusion," Lance Jennings, a clinical virologist with Canterbury Health Laboratories in Christchurch, New Zealand, said in a telephone interview. "It's up to someone else to try and prove it or disprove it."

**INFLUENZA PANDEMIC (H1N1) 2009 , REPEAT INFECTION (UNITED STATES OF AMERICA:WEST VIRGINIA):** 24 Nov 2009, A West Virginia physician who claimed to have contracted the pandemic (H1N1) 2009 virus twice now has proof -- from the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia, no less -- that her claims were true. Dr. Debra Parsons, a pediatrician at Kid Care West in Cross Lanes, was met with reactions of doubt from local health officials last month [October 2009] when she said 2 flu tests had come back positive for [pandemic] H1N1, or swine flu. Parsons 1st came down with the virus, complete with all the telltale symptoms, in August [2009]. Her son became ill at the same time with the same symptoms. Figuring they had the same bug, Parsons tested herself to see what it was. The test came back positive for Influenza A, so the lab at Charleston Area Medical Center (CAMC) sent it to be sub-typed. Parsons was positive for H1N1. Parsons and her son recovered, but in October [2009] they started having the same symptoms, but they became much worse. They were both tested this time, and the results were the same -- they were positive for Influenza A and then [pandemic] H1N1. "It was swine flu both times," Parsons said. Dr. Rahul Gupta, director of the Kanawha-Charleston Health Department, and John Law, spokesman for the West Virginia Division of Health and Human Resources (DHHR), were skeptical of Parsons' claim. Law said the possibility of getting the flu twice was "very, very, very rare." Gupta said he was "aware of no data or scientific body of research or case reports" that indicated someone could contract H1N1 more than once. So the specimen from the Parsons' 2nd flu test was sent to the CDC in Atlanta, Georgia, where it underwent a preliminary strain reaction test. Parsons says that test is the "gold standard" in differentiating between

seasonal and swine flu. That sample came back a couple weeks ago, and it was positive for H1N1. The CDC then requested a specimen from Parsons' August flu test. Last Friday [20 Nov 2009], the results of that test came back positive for H1N1. Parsons says she's spoken with CDC representatives about the results, and they said the double infection isn't all that unbelievable. "They said this happens every year with seasonal flu, so there's no reason to expect that it wouldn't happen with swine flu," Parsons said. "Every flu strain can change a little bit." The pediatrician says there may have been a tiny change in the virus that stopped her immune system from recognizing it or her body never built up immunity to it. Parsons said the CDC's tests confirmed what she already knew, "so I'd know what to tell people, and I could prove that I wasn't trying to start a panic. I don't want to scare anybody. I need to know, as a physician, if it is possible or not. I want to tell my patients the truth," she said. She says the confirmation also speaks well of CAMC's lab. "It feels good to verify that the hospitals here are doing a good job and their tests, for the most part, are accurate," Parsons said. Law, the [West Virginia] DHHR spokesman, still says most people should "rest assured if you've had it, you'll develop some immunity. "Can you ever say never? No you can't." Gupta says he needs to see Parsons' test results before he can change his opinion. He says there are only 2 ways she could have contracted the virus twice -- the virus would have had to change, which he doesn't think has happened, or her body failed to develop an antibody response to it. "That would mean you have a problem with your immune function," he said. Parsons says to her knowledge neither she nor her son has any immunity problems. "He's welcome to see them," she said. "I've had every test that he wanted done when he was on TV."

**INFLUENZA PANDEMIC (H1N1) 2009, HAJJ FATALITIES (SAUDI ARABIA):** 22 Nov 2009, Saudi officials say 4 pilgrims have died of swine flu [influenza pandemic (H1N1) 2009 virus infection] as they take part in this year's [2009] annual Mecca pilgrimage. 3 of the victims -- a woman from Morocco and men from Sudan and India -- were in their 70s. The 4th was a 17-year-old girl from Nigeria. The Health Ministry said none of the 4 foreign victims had been vaccinated against the [pandemic] H1N1 virus. An official statement released by the Ministry said all had underlying health problems, including cancer and respiratory illness, the AFP [Agence France-Presse] news agency reported. 3 of the victims died in Medina and one in Mecca. Up to 3 million Muslims from around the world take part in the holy pilgrimage every year, but health officials have expressed fears that it could provide a breeding ground for the virus. Authorities had tried to prepare for any outbreaks by installing thermal [imaging] cameras at airports and sea terminals, deploying 15 000 additional health workers and ensuring hundreds of extra beds were available. Health Ministry spokesman Dr Khaled Marghali told AFP that 16 other people had diagnosed with swine flu and 4 remain in hospital in "critical condition." He added 12 others had recovered following treatment. The Saudi government has said all pilgrims need a certificate of vaccination before they can apply for a visa. In September [2009], the Egyptian authorities barred hundreds of Muslim pilgrims in Cairo from travelling to Mecca because of fears about the [pandemic] virus. In July [2009], an Egyptian woman returning from the lesser Umrah pilgrimage became the 1st person to die of swine flu in the Middle East and Africa. Performing the Hajj is incumbent upon all Muslims who have the means to make the journey to Mecca. Iran banned all pilgrimages to Saudi Arabia during Ramadan in an attempt to contain the spread of the virus.

#### **Resources:**

<http://www.cdc.gov/h1n1flu/>

<http://www.dhmd.maryland.gov/swineflu/>

#### **NATIONAL DISEASE REPORTS**

No new disease outbreaks related to CDC Critical Biological Agents were reported for MWWR week 47.

#### **INTERNATIONAL DISEASE REPORTS**

**JAPANESE ENCEPHALITIS (INDIA):** 26 Nov 2009, The viral infection Japanese encephalitis has claimed more than 500 lives in Uttar Pradesh and Bihar so far this year [2009], with children facing the brunt of the disease. According to a union health ministry document, Uttar Pradesh is the worst affected with 23 of its districts having been declared endemic. "23 districts of eastern Uttar Pradesh are endemic to Japanese encephalitis," the document said, adding that till 16 Nov 2009, 476 people have died due to the disease in the state. In Bihar, the number of deaths is at least 30 this year [2009]. Over 140 are still undergoing treatment for this viral disease in the state. Domestic pigs and wild birds are reservoirs of the Japanese encephalitis virus. The virus is transmitted by infective bites of female mosquitoes, mainly belonging to *Culex tritaeniorhynchus*, *Culex vishnui*, and the *Culex pseudovishnui* group. The disease gets its name as the virus was first detected in Japan. The ministry document said that 7 districts in Gorakhpur and Basti division in Uttar Pradesh -- Gorakhpur, Kushinagar, Deoria, Maharajganj, Sant Kabir Nagar, Basti, and Siddharth Nagar -- contribute over 90 percent of the Japanese encephalitis deaths in the state. Official statistics said that last year [2008], 537 people lost their lives due to the disease in the state. The ministry also believes that it is children in the age bracket of 1-15 years who are facing the maximum difficulty due to the disease. To curb the spread, the health ministry claims that it has vaccinated 83 percent of the children belonging to the high risk group in 21 of the 23 endemic districts of Uttar Pradesh. One of the major problems facing Uttar Pradesh is wastage of vaccine due to its over-exposure to heat. This year [2009] alone, the state refused to use over a million doses of such vaccines due to the same problem. (Viral Encephalitis is listed in Category B on the CDC list of Critical Biological Agents) \*Non-suspect case



## **OTHER RESOURCES AND ARTICLES OF INTEREST**

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmd.state.md.us/>

Maryland's Resident Influenza Tracking System: [www.tinyurl.com/flu-enroll](http://www.tinyurl.com/flu-enroll)

\*\*\*\*\*

**NOTE:** This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

Sadia Aslam, MPH  
Epidemiologist  
Office of Preparedness and Response  
Maryland Department of Health & Mental Hygiene  
300 W. Preston Street, Suite 202  
Baltimore, MD 21201  
Office: 410-767-2074  
Fax: 410-333-5000  
Email: [SAslam@dhmd.state.md.us](mailto:SAslam@dhmd.state.md.us)